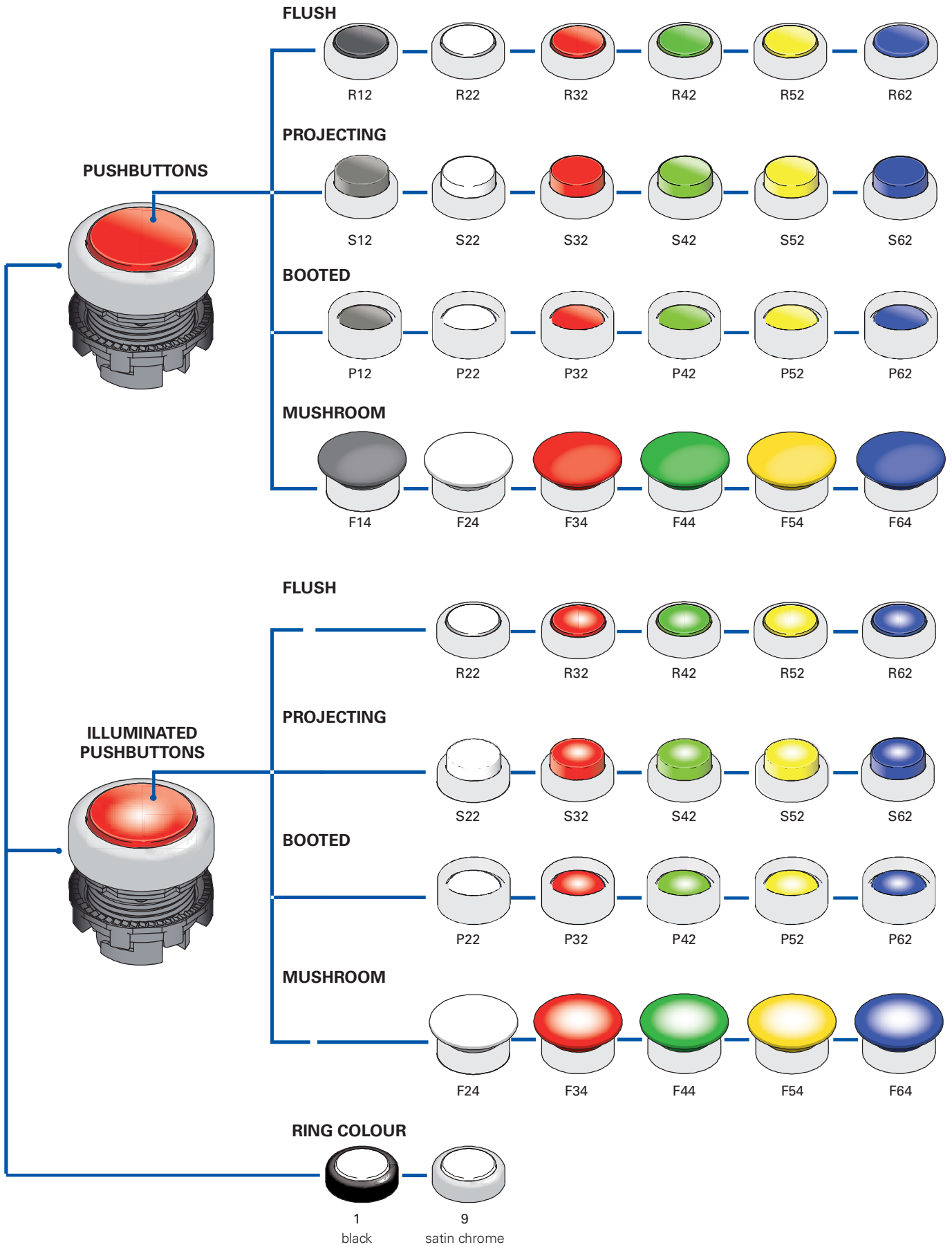
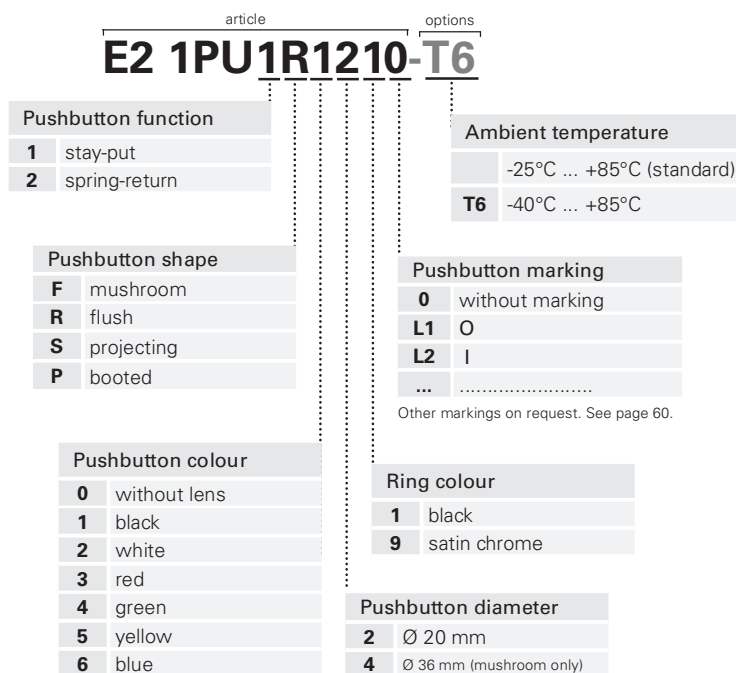


Selection diagram

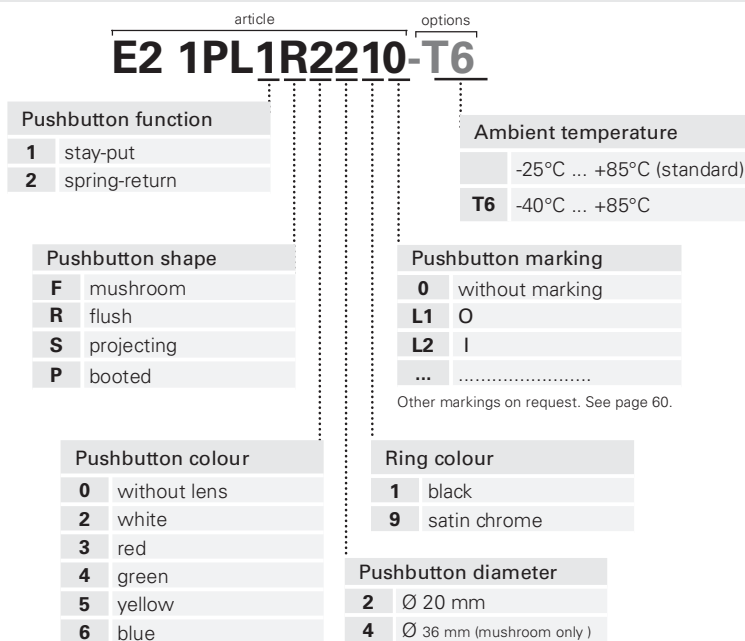


Pushbuttons code structure



Attention! The feasibility of a code number does not mean the effective availability of a product. Please contact our sales office.

Illuminated pushbuttons code structure



Attention! The feasibility of a code number does not mean the effective availability of a product. Please contact our sales office.



Main features

- 4 different shapes
- Standard or illuminated versions
- Reduced actuating force
- Protection degree IP67 and IP69K
- Stay-put or spring-return versions

Technical data

General data

| | |
|-------------------------------------|--|
| Protection degree: | IP67 according to IEC 60529 IP69K according to DIN 40050 |
| Ambient temperature: | -25°C +80°C |
| Mechanical endurance: | 15 million operations cycles (Spring-return pushbutton) 1 million operations cycles (Stay-put pushbutton) |
| Max operating frequency: | 3600 operations cycles/hour |
| Actuating travel: | 2,6 mm (NO contact) 1,2 mm (NC contact) |
| Actuating force: | 4,7 N (1 NO contact/spring-return pushbutton) 3,8 N (1 NC contact/spring-return pushbutton) |
| Additional contact actuating force: | + 2,6 N (1 NO contact) + 1,7 N (1 NC contact) |
| Maximum travel: | 5 mm |
| Ring driving torque: | 2 ... 2,5 Nm |
| Utilization requirements: | see page 61 |

In conformity with standards:

IEC 60947-1, IEC 60947-5-1, IEC 60204-1, EN 60947-1, EN 60947-5-1, EN 60204-1, UL 508, CSA 22-2 N°14

⚠ Installation for safety applications:

Use only switches with marking with the symbol ⊕. The safety circuit must always be connected with the **NC contacts** (normally closed contacts: 1-2) as stated in the standard EN 60947-5-1, encl. K, par. 2.

Markings and quality marks:



In conformity with requirements requested by:

Low Voltage Directive 2006/95/EC, Machinery Directive 2006/42/EC and Electromagnetic Compatibility 2004/108/EC.

Positive contact opening in conformity with standards:

IEC 60947-5-1, EN 60947-5-1, VDE 0660-206.

General characteristics

Shape

Available in standard or illuminated (LED illumination) versions, the pushbuttons can be flush, projecting, booted or mushroom.

Protection degree IP67 and IP69K

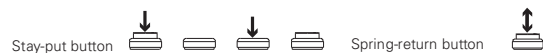
Designed to be employed also in severe environment conditions, Pizzato Elettrica pushbuttons have protection degree IP67 and IP69K, suitable for use in machineries subjected to intense washing with high pressure and high temperature water jets.

Mechanical endurance

Thanks to the particular design and the materials employed, the spring-return pushbuttons have passed 15 million operations, guaranteeing a remarkable mechanical endurance.

Functions

Depending on the application, Pizzato Elettrica EROUND pushbuttons are available in two versions: stay-put (once the button is pushed a second manual intervention is needed to release it) and spring-return (the pushbutton hasn't any stable stop system).



Customizing possibilities

In order to suit the various requests and needs of the customers, Pizzato Elettrica offers the possibility to customize the EROUND control and signalling devices: the rings can be requested in different colours (gold satinized, bright black chrome, white, black and satin chrome), while the lens can be customized with inscriptions, symbols and colours.

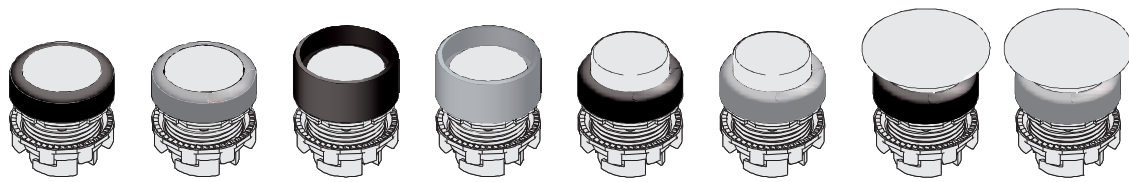
Temperature range extended

-40°C

Special versions can be ordered for use in environments where the temperature changes from +80°C to -40°C.

They can be installed inside cold stores, sterilizers or other equipments with very low ambient temperature. Special materials that have been used to realize these versions, maintain unchanged their features also in these conditions, widening the installation possibilities.

Pushbuttons selection table

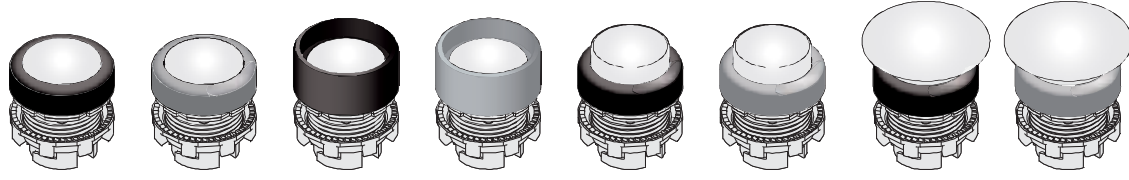


| Actuator colour and marking | Flush | | Booted | | Projecting | | Mushroom | |
|-----------------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|
| | black ring | satin chrome ring | black ring | satin chrome ring | black ring | satin chrome ring | black ring | satin chrome ring |
| without lens | E2 1PU2R0210 | E2 1PU2R0290 | E2 1PU2P0210 | E2 1PU2P0290 | - | - | - | - |
| black | E2 1PU2R1210 | E2 1PU2R1290 | E2 1PU2P1210 | E2 1PU2P1290 | E2 1PU2S1210 | E2 1PU2S1290 | E2 1PU2F1410 | E2 1PU2F1490 |
| white | E2 1PU2R2210 | E2 1PU2R2290 | E2 1PU2P2210 | E2 1PU2P2290 | E2 1PU2S2210 | E2 1PU2S2290 | E2 1PU2F2410 | E2 1PU2F2490 |
| red | E2 1PU2R3210 | E2 1PU2R3290 | E2 1PU2P3210 | E2 1PU2P3290 | E2 1PU2S3210 | E2 1PU2S3290 | E2 1PU2F3410 | E2 1PU2F3490 |
| green | E2 1PU2R4210 | E2 1PU2R4290 | E2 1PU2P4210 | E2 1PU2P4290 | E2 1PU2S4210 | E2 1PU2S4290 | E2 1PU2F4410 | E2 1PU2F4490 |
| yellow | E2 1PU2R5210 | E2 1PU2R5290 | E2 1PU2P5210 | E2 1PU2P5290 | E2 1PU2S5210 | E2 1PU2S5290 | E2 1PU2F5410 | E2 1PU2F5490 |
| blue | E2 1PU2R6210 | E2 1PU2R6290 | E2 1PU2P6210 | E2 1PU2P6290 | E2 1PU2S6210 | E2 1PU2S6290 | E2 1PU2F6410 | E2 1PU2F6490 |
| red with I | E2 1PU2R321L1 | E2 1PU2R329L1 | - | - | E2 1PU2S321L1 | E2 1PU2S329L1 | E2 1PU2F341L1 | E2 1PU2F349L1 |
| green with I | E2 1PU2R421L2 | E2 1PU2R429L2 | E2 1PU2P421L2 | E2 1PU2P429L2 | E2 1PU2S421L2 | E2 1PU2S429L2 | E2 1PU2F441L2 | E2 1PU2F449L2 |
| black with I | E2 1PU2R121L1 | E2 1PU2R129L1 | - | - | E2 1PU2S121L1 | E2 1PU2S129L1 | E2 1PU2F141L1 | E2 1PU2F149L1 |
| white with I | E2 1PU2R221L2 | E2 1PU2R229L2 | E2 1PU2P221L2 | E2 1PU2P229L2 | E2 1PU2S221L2 | E2 1PU2S229L2 | E2 1PU2F241L2 | E2 1PU2F249L2 |

For ordering a stay-put pushbutton substitute in the article codes 1PU2 with 1PU1.

Example: E2 1PU2R0210 → E2 1PU1R0210

Illuminated pushbuttons selection table



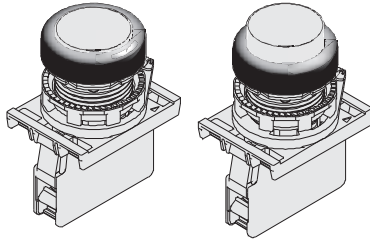
| Actuator colour and marking | Flush | | Booted | | Projecting | | Mushroom | |
|-----------------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|
| | black ring | satin chrome ring | black ring | satin chrome ring | black ring | satin chrome ring | black ring | satin chrome ring |
| without lens | E2 1PL2R0210 | E2 1PL2R0290 | E2 1PL2P0210 | E2 1PL2P0290 | - | - | - | - |
| white | E2 1PL2R2210 | E2 1PL2R2290 | E2 1PL2P2210 | E2 1PL2P2290 | E2 1PL2S2210 | E2 1PL2S2290 | E2 1PL2F2410 | E2 1PL2F2490 |
| red | E2 1PL2R3210 | E2 1PL2R3290 | E2 1PL2P3210 | E2 1PL2P3290 | E2 1PL2S3210 | E2 1PL2S3290 | E2 1PL2F3410 | E2 1PL2F3490 |
| green | E2 1PL2R4210 | E2 1PL2R4290 | E2 1PL2P4210 | E2 1PL2P4290 | E2 1PL2S4210 | E2 1PL2S4290 | E2 1PL2F4410 | E2 1PL2F4490 |
| yellow | E2 1PL2R5210 | E2 1PL2R5290 | E2 1PL2P5210 | E2 1PL2P5290 | E2 1PL2S5210 | E2 1PL2S5290 | E2 1PL2F5410 | E2 1PL2F5490 |
| blue | E2 1PL2R6210 | E2 1PL2R6290 | E2 1PL2P6210 | E2 1PL2P6290 | E2 1PL2S6210 | E2 1PL2S6290 | E2 1PL2F6410 | E2 1PL2F6490 |
| red with I | E2 1PL2R321L1 | E2 1PL2R329L1 | - | - | E2 1PL2S321L1 | E2 1PL2S329L1 | E2 1PL2F341L1 | E2 1PL2F349L1 |
| green with I | E2 1PL2R421L2 | E2 1PL2R429L2 | E2 1PL2P421L2 | E2 1PL2P429L2 | E2 1PL2S421L2 | E2 1PL2S429L2 | E2 1PL2F441L2 | E2 1PL2F449L2 |
| white with I | E2 1PL2R221L1 | E2 1PL2R229L1 | - | - | E2 1PL2S221L1 | E2 1PL2S229L1 | E2 1PL2F241L1 | E2 1PL2F249L1 |
| white with I | E2 1PL2R221L2 | E2 1PL2R229L2 | E2 1PL2P221L2 | E2 1PL2P229L2 | E2 1PL2S221L2 | E2 1PL2S229L2 | E2 1PL2F241L2 | E2 1PL2F249L2 |

For ordering a stay-put pushbutton substitute in the article codes 1PL2 with 1PL1.

Example: E2 1PL2R0210 → E2 1PL1R0210

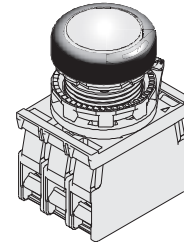
Items with code on the green background are available in stock

Complete units with pushbuttons



| Actuator colour and marking | Contacts | | | Flush | Projecting |
|-----------------------------|----------|-------|-------|--|--|
| | pos 2 | pos 3 | pos 1 | black ring | black ring |
| ● black | - | 1NO | - | E2 AC-DXBC1204 E2 1PU2R1210 + E2 1BAC11 + E2 CP10G2V1 | |
| ○ white | - | 1NO | - | E2 AC-DXBC1200 E2 1PU2R2210 + E2 1BAC11 + E2 CP10G2V1 | |
| ● red | - | 1NC | ⊖ | E2 AC-DXBC1208 E2 1PU2R3210 + E2 1BAC11 + E2 CP01G2V1 | E2 AC-DXBC1209 E2 1PU2S3210 + E2 1BAC11 + E2 CP01G2V1 |
| ● green | - | 1NO | - | E2 AC-DXBC1201 E2 1PU2R4210 + E2 1BAC11 + E2 CP10G2V1 | |
| ● yellow | - | 1NO | - | E2 AC-DXBC1206 E2 1PU2R5210 + E2 1BAC11 + E2 CP10G2V1 | |
| ● blue | - | 1NO | - | E2 AC-DXBC1207 E2 1PU2R6210 + E2 1BAC11 + E2 CP10G2V1 | |
| ○ red | - | 1NC | ⊖ | E2 AC-DXBC1211 E2 1PU2R321L1 + E2 1BAC11 + E2 CP01G2V1 | E2 AC-DXBC1212 E2 1PU2S321L1 + E2 1BAC11 + E2 CP01G2V1 |
| ● green | - | 1NO | - | E2 AC-DXBC1210 E2 1PU2R421L2 + E2 1BAC11 + E2 CP10G2V1 | |
| ○ black | - | 1NC | ⊖ | E2 AC-DXBC1227 E2 1PU2R121L1 + E2 1BAC11 + E2 CP01G2V1 | |
| ○ white | - | 1NO | - | E2 AC-DXBC1226 E2 1PU2R221L2 + E2 1BAC11 + E2 CP10G2V1 | |

Complete units with illuminated pushbuttons

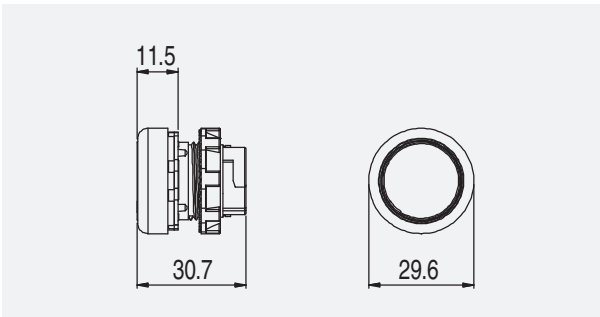


| Actuator colour and marking | Contacts | | | Flush |
|-----------------------------|----------|-------|-------|--|
| | pos 2 | pos 3 | pos 1 | black ring |
| ○ white | 1NC | LED | 1NO | E2 AC-DXBC0400 E2 1PL2R2210 + E2 1BAC11 + E2 CP01G2V1 + E2 LP1A2V1 + E2 CP10G2V1 |
| ● red | 1NC | LED | 1NO | E2 AC-DXBC0402 E2 1PL2R3210 + E2 1BAC11 + E2 CP01G2V1 + E2 LP1A3V1 + E2 CP10G2V1 |
| ● green | 1NC | LED | 1NO | E2 AC-DXBC0401 E2 1PL2R4210 + E2 1BAC11 + E2 CP01G2V1 + E2 LP1A4V1 + E2 CP10G2V1 |
| ● yellow | 1NC | LED | 1NO | E2 AC-DXBC0404 E2 1PL2R5210 + E2 1BAC11 + E2 CP01G2V1 + E2 LP1A2V1 + E2 CP10G2V1 |
| ● blue | 1NC | LED | 1NO | E2 AC-DXBC0403 E2 1PL2R6210 + E2 1BAC11 + E2 CP01G2V1 + E2 LP1A6V1 + E2 CP10G2V1 |

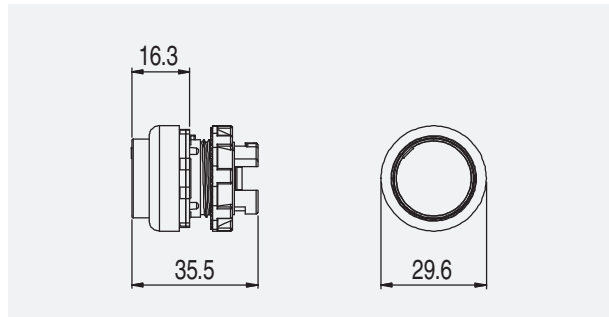
→ For the contact block and LED block characteristics see the respective chapters.

Dimensions

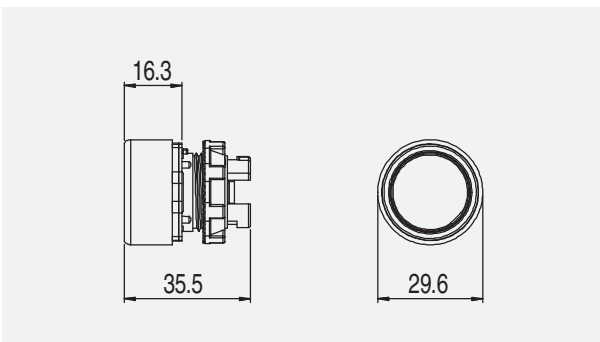
Flush pushbutton



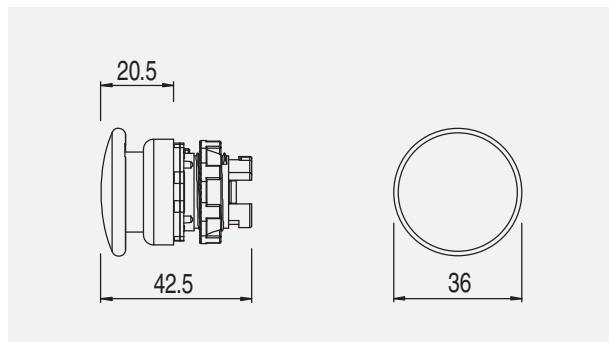
Projecting pushbutton



Booted pushbutton



Mushroom pushbutton



All measures in the drawings are in mm

→ 2D and 3D files available on www.pizzato.com

Lenses for E2 1PU pushbuttons



For ordering E2 1PU lenses with marking:

in the article code substitute ●●● with the marking code in the table at page 60. Example: lens for flush pushbuttons with "O" marking, black colour.

VE LP 21R1●●● → VE LP 21R1L1

| Article | Marking | Description | Colours | Pcs/Packs | |
|--------------|---------|--|---|-----------|----|
| VE LP21R10 | | Lens for black flush pushbutton, without marking | ● | 10 | |
| VE LP21R20 | | Lens for white flush pushbutton, without marking | ○ | 10 | |
| VE LP21R30 | | Lens for red flush pushbutton, without marking | ● | 10 | |
| VE LP21R40 | | Lens for green flush pushbutton, without marking | ● | 10 | |
| VE LP21R50 | | Lens for yellow flush pushbutton, without marking | ● | 10 | |
| VE LP21R60 | | Lens for blue flush pushbutton, without marking | ● | 10 | |
| VE LP21S10 | | | Lens for black projecting pushbutton, without marking | ● | 10 |
| VE LP21S20 | | | Lens for white projecting pushbutton, without marking | ○ | 10 |
| VE LP21S30 | | Lens for red projecting pushbutton, without marking | ● | 10 | |
| VE LP21S40 | | Lens for green projecting pushbutton, without marking | ● | 10 | |
| VE LP21S50 | | Lens for yellow projecting pushbutton, without marking | ● | 10 | |
| VE LP21S60 | | Lens for blue projecting pushbutton, without marking | ● | 10 | |
| VE LP21R1●●● | | | Lens for black flush pushbutton, with marking | ● | 1 |
| VE LP21R2●●● | | | Lens for white flush pushbutton, with marking | ○ | 1 |
| VE LP21R3●●● | | Lens for red flush pushbutton, with marking | ● | 1 | |
| VE LP21R4●●● | | Lens for green flush pushbutton, with marking | ● | 1 | |
| VE LP21R5●●● | | Lens for yellow flush pushbutton, with marking | ● | 1 | |
| VE LP21R6●●● | | Lens for blue flush pushbutton, with marking | ● | 1 | |
| VE LP21S1●●● | | | Lens for black projecting pushbutton, with marking | ● | 1 |
| VE LP21S2●●● | | | Lens for white projecting pushbutton, with marking | ○ | 1 |
| VE LP21S3●●● | | Lens for red projecting pushbutton, with marking | ● | 1 | |
| VE LP21S4●●● | | Lens for green projecting pushbutton, with marking | ● | 1 | |
| VE LP21S5●●● | | Lens for yellow projecting pushbutton, with marking | ● | 1 | |
| VE LP21S6●●● | | Lens for blue projecting pushbutton, with marking | ● | 1 | |

Lenses for E2 1PL illuminated pushbuttons



For ordering E2 1PL lenses with marking:

in the article code substitute ●●● with the marking code in the table at page 60. Example: lens for flush pushbuttons with "O" marking, black colour.

VE LP 22R1●●● → VE LP 22R1L1

| Article | Marking | Description | Colours | Pcs/Packs | |
|--------------|--|---|---|-----------|----|
| VE LP22R20 | | Lens for white illuminated flush pushbutton, without marking | ○ | 10 | |
| VE LP22R30 | | Lens for red illuminated flush pushbutton, without marking | ● | 10 | |
| VE LP22R40 | | Lens for green illuminated flush pushbutton, without marking | ● | 10 | |
| VE LP22R50 | | Lens for yellow illuminated flush pushbutton, without marking | ● | 10 | |
| VE LP22R60 | | Lens for blue illuminated flush pushbutton, without marking | ● | 10 | |
| VE LP22S20 | | | Lens for white illuminated projecting pushbutton, without marking | ○ | 10 |
| VE LP22S30 | | | Lens for red illuminated projecting pushbutton, without marking | ● | 10 |
| VE LP22S40 | Lens for green illuminated projecting pushbutton, without marking | | ● | 10 | |
| VE LP22S50 | Lens for yellow illuminated projecting pushbutton, without marking | | ● | 10 | |
| VE LP22S60 | Lens for blue illuminated projecting pushbutton, without marking | | ● | 10 | |
| VE LP22R2●●● | | | Lens for white illuminated flush pushbutton, with marking | ○ | 1 |
| VE LP22R3●●● | | | Lens for red illuminated flush pushbutton, with marking | ● | 1 |
| VE LP22R4●●● | | Lens for green illuminated flush pushbutton, with marking | ● | 1 | |
| VE LP22R5●●● | | Lens for yellow illuminated flush pushbutton, with marking | ● | 1 | |
| VE LP22R6●●● | | Lens for blue illuminated flush pushbutton, with marking | ● | 1 | |
| VE LP22S2●●● | | | Lens for white illuminated projecting pushbutton, with marking | ○ | 1 |
| VE LP22S3●●● | | | Lens for red illuminated projecting pushbutton, with marking | ● | 1 |
| VE LP22S4●●● | Lens for green illuminated projecting pushbutton, with marking | | ● | 1 | |
| VE LP22S5●●● | Lens for yellow illuminated projecting pushbutton, with marking | | ● | 1 | |
| VE LP22S6●●● | Lens for blue illuminated projecting pushbutton, with marking | | ● | 1 | |

Items with code on the green background are available in stock

Blanking plug



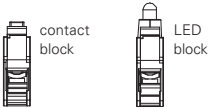
| Article | Description |
|-----------|--|
| VE AS1211 | Central blanking plug for E2 1PL illuminated pushbuttons |

It closes the illuminated button central hole allowing to install a contact instead of the LED.

Accessories

→ [More ACCESSORIES at page 57](#)

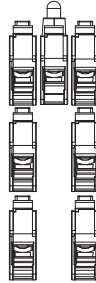
Contacts maximum number



Spring-return pushbuttons
E2 1PU1 series



Illuminated spring-return pushbuttons
E2 1PL1 series



Stay-put pushbuttons
E2 1PU2 series



Illuminated stay-put pushbuttons
E2 1PL2 series



Assembling minimum distances

